Fig.1.

```
            1           11          21          31          41          51
Rs-AFP1     QKLCERPSGT  WSGVCGNNNA  CKNQCINLEK  ARHGSCNYVF  PAHKCICYFP  C
Rs-AFP2     QKLCQRPSGT  WSGVCGNNNA  CKNQCIRLEK  ARHGSCNYVF  PAHKCICYFP  C
Rs-AFP3     -KLCERSSGT  WSGVCGNNNA  CKNQCIRLEG  AQHGSCNYVF  PAHKCICYFP  C
Rs-AFP4     QKLCERSSGT  WSGVCGNNNA  CKNQCINLEG  ARHGSCNYIF  PYHRCICYFP  C
Br-AFP1     QKLCERPSGT  WSGVCGNNNA  CKNQCIN
Br-AFP2     QKLCERPSGT  ?SGVCGNNNA  CKNQCIR
Bn-AFP1     QKLCERPSGT  WSGVCGNNNA  CKNQCINLEK
Bn-AFP2     QKLCERPSGT  WSGVCGNNNA  CKN
Sa-AFP1     QKLCERPSGT  WSGVCGNNNA  CKNQC
Sa-AFP2     QKLCQRPSGT  WSGVCGNNNA  CRNQCI
At-AFP1     QKLCERPSGT  WSGVCGNSNA  CKNQCIN
```

Fig.2.

```
GTTTTATTAGTGATCATGGCTAAGTTTGCGTCCATCATCGCACTT      45
                M  A  K  F  A  S  I  I  A  L

CTTTTTGCTGCTCTTGTTCTTTTTGCTGCTTTCGAAGCACCAACA      90
 L  F  A  A  L  V  L  F  A  A  F  E  A  E  T

ATGGTGGAAGCACAGAAGTTGTGCGAAAGGCCAAGTGGGACATGG     135
 M  V  E  A [Q  K  L  C  E  R  P  S  G  T  W]

TCAGGAGTCTGTGGAAACAATAACGCATGCAAGAATCAGTGCATT     180
[S  G  V  C  G  N  N  N  A  C  K  N  Q  C  I]

AACCTTGAGAAAGCACGACATGGATCTTGCAACTATGTCTTCCCA     225
[N  L  E  K  A  R  H  G  S  C  N  Y  V  F  P]

GCTCACAAGTGTATCTGCTACTTTCCTTGTIAATTTATCGCAAAC     270
[A  H  K  C  I  C  Y  F  P  C]  *

TCTTTGGTGAATAGTTTTTATGTAATTTACACAAAATAAGTCAGT     315

GTCACTATCCATGAGTGATTTTAAGACATGTACCAGATATGTTAT     360

GTTGGTTCGGTTATACAAATAAAGTTTTATTCACCAAAAAAAAAA     405

AAAAAAAAA                                         414
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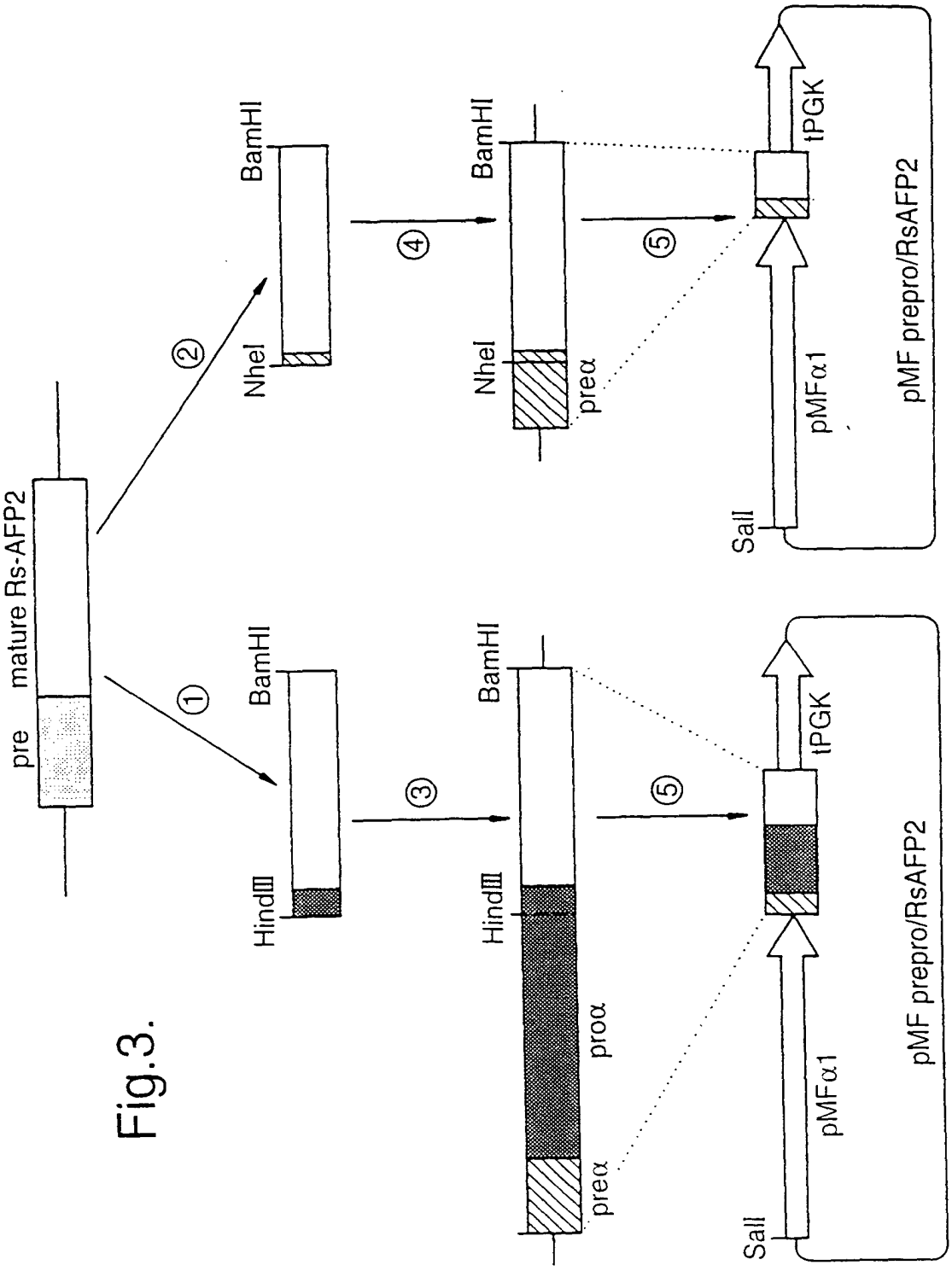
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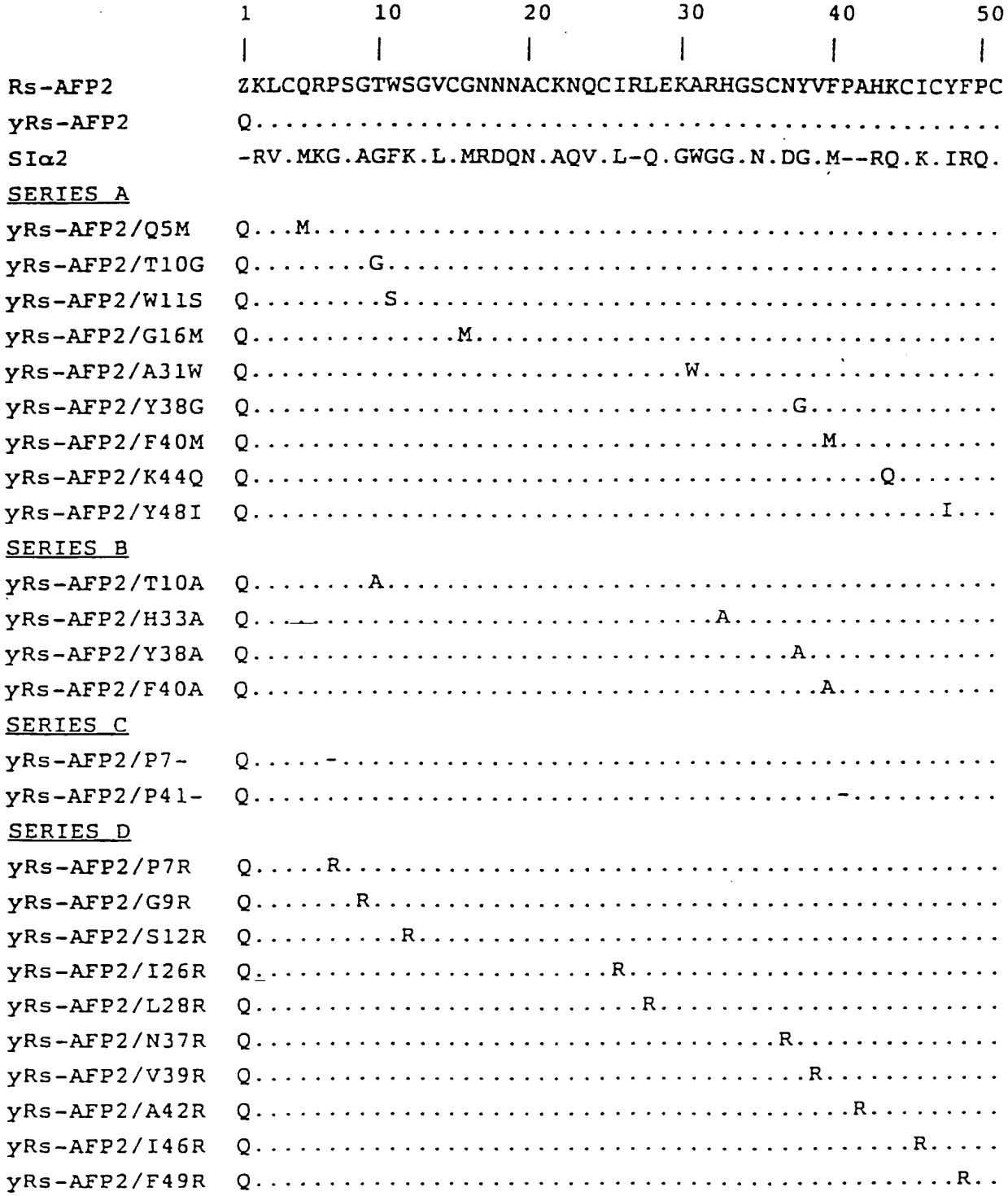
①
②
③
④
⑤
BamHI
HindIII
NheI
proα
preα
SalI
pMFα1
tPGK
pMF prepro/RsAFP2

Fig.3.

Fig.4.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SERIES A
yRs-AFP2/Q5M Q...M
yRs-AFP2/T10G Q.....G
yRs-AFP2/W11S Q.....S
yRs-AFP2/G16M Q.....M
yRs-AFP2/A31W Q.....W
yRs-AFP2/Y38G Q.....G
yRs-AFP2/F40M Q.....M
yRs-AFP2/K44Q Q.....Q
yRs-AFP2/Y48I Q.....I...
SERIES B
yRs-AFP2/T10A Q.....A
yRs-AFP2/H33A Q.....A
yRs-AFP2/Y38A Q.....A
yRs-AFP2/F40A Q.....A
SERIES C
yRs-AFP2/P7- Q.....-
yRs-AFP2/P41- Q.....-
SERIES D
yRs-AFP2/P7R Q.....R
yRs-AFP2/G9R Q.....R
yRs-AFP2/S12R Q.....R
yRs-AFP2/I26R Q.....R
yRs-AFP2/L28R Q.....R
yRs-AFP2/N37R Q.....R
yRs-AFP2/V39R Q.....R
yRs-AFP2/A42R Q.....R
yRs-AFP2/I46R Q.....R
yRs-AFP2/F49R Q.....R..

```
                    1Q    2K    3L    4C    5Q    6R    7P
                    CAG   AAG   TTG   TGC   CAA   AGG   CCA   AG
OWB41:AATAAGCTTTGGACAAGAGA
                    CAG   AAG   TTG   TGC   ATG   AGG   CCA   AG
                    Q     K     L     C     M     R     P

                    3L    4C    5Q    6R    7P    8S    9G    10T   11W
                    TTG   TGC   CAA   AGG   CCA   AGT   GGG   ACA   TGG
OWB42:              TTG   TGC   CAA   AGG   ---   AGT   GGG   ACA   TGG
                    L     C     Q     R     -     S     G     T     W

                    7P    8S    9G    10T   11W   12S
                    CCA   AGT   GGG   ACA   TGG   TCA   GG
OWB43:              CCA   AGT   GGG   GGT   TGG   TCA   GG
                    P     S     G     G     W     S

                    8S    9G    10T   11W   12S   13G   14V
                    AGT   GGG   ACA   TGG   TCA   GGA   GTC
OWB44:              AGT   GGG   ACA   TCC   TCA   GGA   GTC
                    S     G     T     S     S     G     V

                    13G   14V   15C   16G   17N   18N   19N
                    GGA   GTC   TGT   GGA   AAC   AAT   AAC   GC
OWB45:              GGA   GTC   TGT   ATG   AAC   AAT   AAC   GC
                    G     V     C     M     N     N     N
```

FIG. 5A

FIG. 5

FIG. 5A

FIG. 5B

FIG. 5

	^{35}S	^{36}C	^{37}Q	^{38}Y	^{39}V	^{40}F			
	TCT	TGC	AAC	TAT	GTC	TTC	CC		
OWB77:	TCT	TGC	AAC	**GGT**	GTC	TTC	CC		
	S	C	Q	**G**	V	F			

	^{36}C	^{37}Q	^{38}Y	^{39}V	^{40}F	^{41}P	^{42}A		
	TGC	AAC	TAT	GTC	TTC	CCA	GCT	C	
OWB47:	TGC	AAC	TAT	GTC	**ATG**	CCA	GCT	C	
	C	Q	Y	V	**M**	P	A		

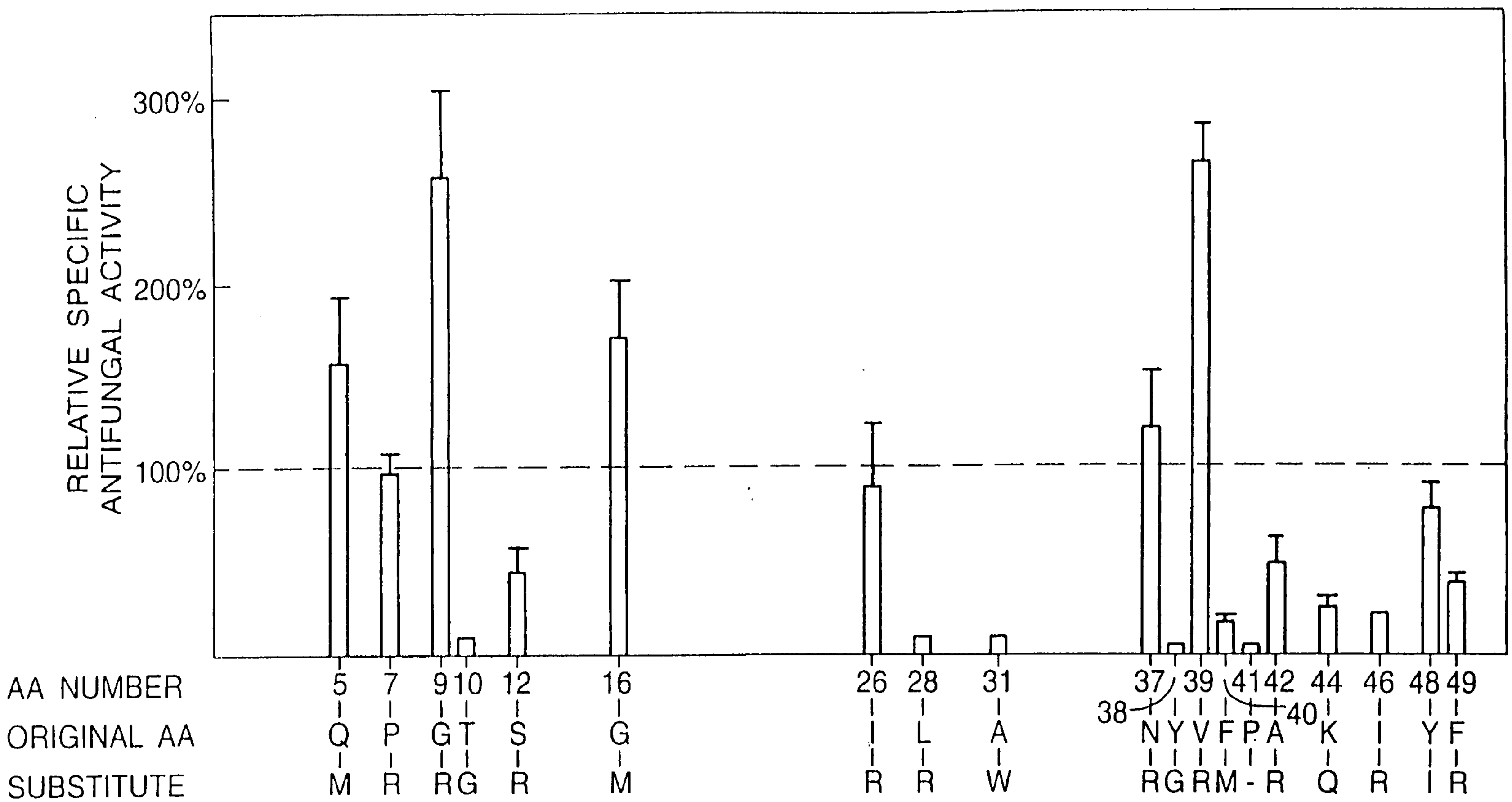
	^{37}Q	^{38}Y	^{39}V	^{40}F	^{41}P	^{42}A	^{43}H	^{44}K	
	AAC	TAT	GTC	TTC	CCA	GCT	CAC	AAG	TG
OWB48:	AAC	TAT	GTC	TTC	---	GCT	CAC	AAG	TG
	Q	Y	V	F	-	A	H	K	

	^{40}F	^{41}P	^{42}A	^{43}H	^{44}K	^{45}C	^{46}I		
	TTC	CCA	GCT	CAC	AAG	TGT	ATC	TG	
OWB49:	TTC	CCA	GCT	CAC	**CAA**	TGT	ATC	TG	
	F	P	A	H	**Q**	C	I		

	^{45}C	^{46}I	^{47}C	^{48}Y	^{49}F	^{50}C		
	TGT	ATC	TGC	TAC	TTT	CCT	TG	
OWB50:	TGT	ATC	TGC	**A**TC	TTT	CCT	TG	
	C	I	C	**I**	F	C		

FIG. 5B

Fig.6.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200%
100%
AA NUMBER
ORIGINAL AA
SUBSTITUTE
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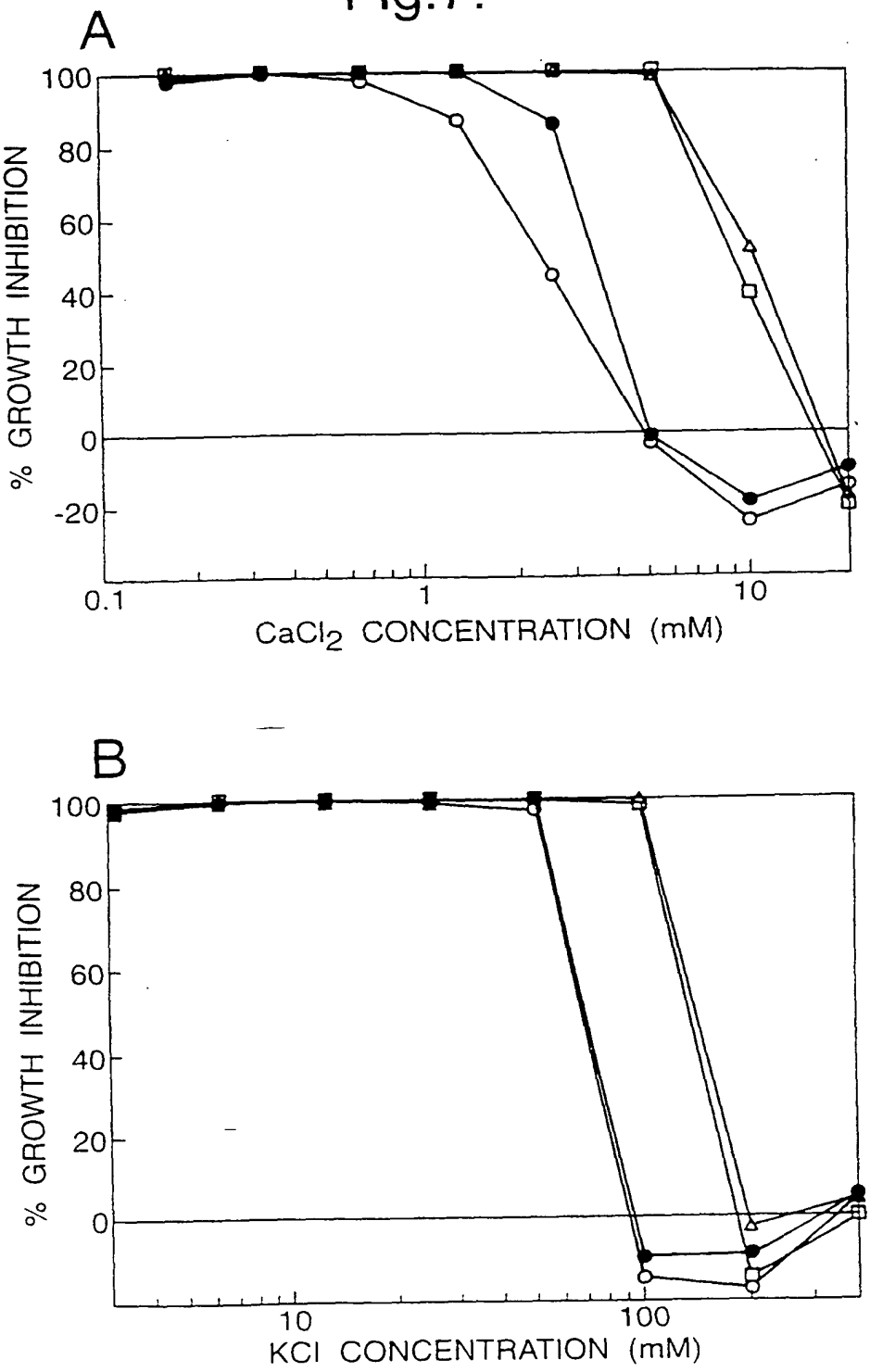
7 P R
9 G R
10 T G
12 S R
16 G M
26 I R
28 L R
31 A W
37 N R
38 Y G
39 V R
40 F M
41 P -
42 A R
44 K Q
46 I R
48 Y I
49 F R

Fig.7.


A
100
80
60
40
20
0
-20
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0.1
1
10
CaCl2 CONCENTRATION (mM)
B
100
80
60
40
20
0
% GROWTH INHIBITION
10
100
KCl CONCENTRATION (mM)